

# Kinks Helpful to Car Owners

Work behind instrument panel made easy with small mirror. Cutout is used to operate spare tail-light.

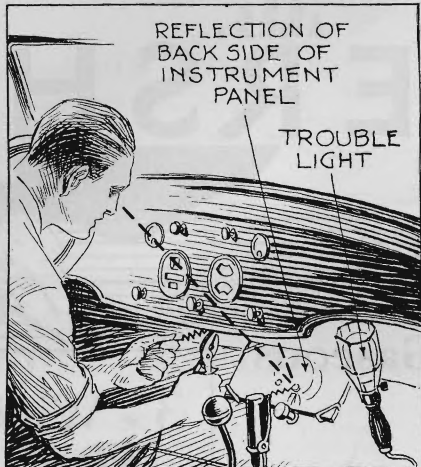


Fig. 1. Mirror can be used as shown when repair work is being done on dash instruments.

**A**LMOST the most awkward place around a car to do work is back of the instrument panel. Repairing the wiring of some of the dash instruments can be done quite easily with the aid of a mirror placed as shown in Fig. 1. Any convenient small mirror will do. Support it so that it will reflect to your eyes the image of the parts on which you want to work while you are comfortably seated in the front seat. Place a trouble light where it will illuminate the work.

## Simple Ice Carrier

FIGURE 2 shows how to make an ice carrier from sheet iron about  $\frac{3}{16}$  inches thick. Bend it so that it fits over the edge of the running board, then drill straight through for a bolt which can be held in place with a wing nut. The two projections are formed with the aid of a cold chisel. If long pieces of ice are to be carried, it will be well to make two of the devices, spaced at the proper distances on the edge of the running board.

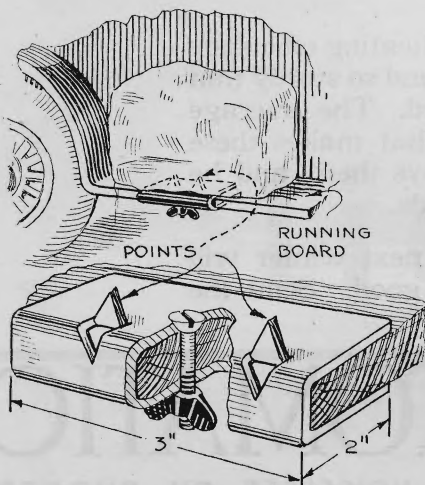


Fig. 2. Sheet iron, bent over running board and bolted down, makes a good ice carrier.

## Foiling the Parts Thief

ANY device, such as a bumper, ordinarily can be removed by a thief equipped with a monkey wrench. However, few accessory thieves will attempt to remove anything that appears to be riveted to the frame or body of the car. You can fool the accessory thief by the method shown in Fig. 3, if the material is molded over the boltheads and nuts so as to resemble large rivets. After it is dry it should be painted to match the color of the surrounding metal parts.

## Spare Tail-Light

UNLESS the tail-light is wired in series with the dash light and three-volt bulbs

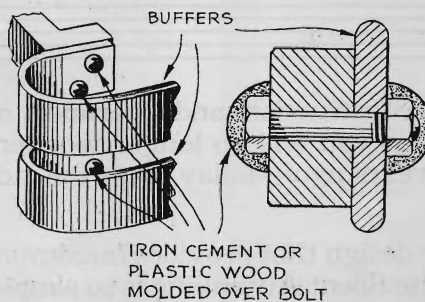


Fig. 3. Thieves are deceived if bolts are covered with iron cement and painted over.

are used at both points, the motorist has no way of knowing whether the tail-light is burning. Fig. 4 shows a way to wire a generator cutout and a spare tail-light so that the extra tail-light will light at once when the regular tail light bulb

POPULAR SCIENCE MONTHLY awards each month a prize of \$10, in addition to regular space rates, for the best idea sent in for motorists. This month's prize goes to Frank Curtis, Forest Hills, Ill., for his suggestion for a remedy for a defective tail-light circuit (shown in Figure 4, at upper right, and described in column two).

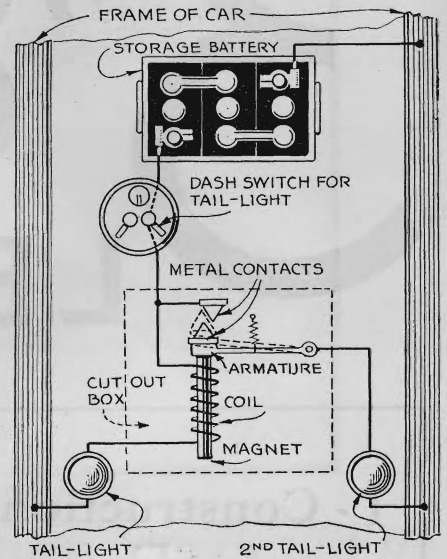


Fig. 4. Spare tail-light is wired to old generator cutout so that it will work automatically.

burns out. As soon as a new bulb is placed in the regular tail-light, the spare will automatically go out. As the diagram shows, current flowing through the cutout magnet winding by way of the regular tail-light keeps the circuit open, through which current can reach the spare tail-light. When the regular tail-light burns out, current stops flowing through the magnet and the circuit through the spare automatically closes.

## Novel Valve Lifter

AN OLD hammer handle, part of a door hasp, two bolts and nuts, a piece of wire, and a curtain ring can be made into a satisfactory valve lifter as shown in Fig. 5. The ring is slipped over a cylinder-head bolt. Be sure to use strong wire.

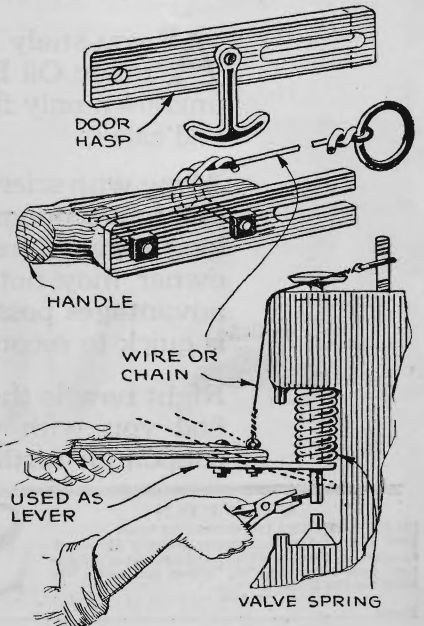


Fig. 5. Easy to make a valve lifter at home with hammer handle, bolts, ring, and bit of wire.